

**CLAIMS**

1. For use in an electronic commerce system allowing a customer having an account with a first payment service provider based in a home network to purchase goods and services from a merchant having an account with a second payment service provider based in a remote network,  
  
a method for executing a transaction desired by a customer including the steps of:  
  
initiating, by the customer, a desired transaction with a merchant having an account with a second payment service provider based in a remote network;  
  
selecting a payment option, by the customer, wherein there is an association between a first payment service provider and a selected payment option, and wherein said step of selecting a payment option defines a first payment service provider and a home network in which it is based, wherein the customer has an account;  
  
sending, by the merchant to the second payment service provider, of authorization request for payment for the transaction;  
  
forwarding the authorization request from the second payment service provider to the first payment service provider wherein the customer has an account;  
  
authorizing, by the first payment service provider, payment for the transaction;  
  
forwarding the payment authorization for the transaction from the first payment service provider to the second payment service provider;  
  
authenticating the customer;  
  
approving the fulfillment of the transaction;  
  
fulfilling the transaction desired by the customer; and  
  
settling financial obligations arising from the transaction among the parties thereto,  
  
wherein, said steps of selecting, sending, forwarding, authorizing, forwarding, authenticating, approving, fulfilling, and settling are members of a first sequence of steps.

2. A method according to claim 1, wherein said step of forwarding the authorization request includes the steps of:

relaying the authorization request, by the second payment service provider, to a second payment gateway connected to the remote network;

associating, by the second payment gateway, the home network and the first payment service provider wherein the customer has an account, defined in said step of selecting, with a first payment gateway connected to the home network;

redirecting the authorization request, by the second payment gateway to the first payment gateway via a general network; and

conveying, by the first payment gateway, the authorization request to the first payment service provider wherein the customer has an account,

wherein said steps of relaying, associating, redirecting, and conveying are further members of said first sequence of steps.
3. A method according to claim 2, wherein said step of forwarding the payment authorization is forwarding the payment authorization via the home network to the first payment gateway and from the first payment gateway to the second payment gateway via the general network and from the second payment gateway via the remote network to the second payment service provider.
4. A method according to claim 1, wherein said step of authenticating further includes the step of identifying the customer by means of at least one member of the group including: a signature, a SIM card, an identifying object, a secret code, and a biometric identifier; and wherein said step of identifying is a further member of said first sequence of steps.
5. A method according to claim 4, wherein said steps of authenticating and identifying require confirmation that is completed by the customer at the location of the merchant.

6. A method according to claim 4, wherein said steps of authenticating and identifying require confirmation from the first payment service provider wherein the customer has an account.
7. A method according to claim 1, wherein, in said step of selecting a payment option, the payment option is one member of the group including: a credit card, a debit card, a preauthorized credit line, a prepaid debit account, a rechargeable prepaid debit account, a prepaid telephony account, and a postpaid telephony account.
8. A method according to claim 7, wherein the rechargeable prepaid debit account employs a memory storage device carried by the customer.
9. A method according to claim 8, wherein the memory storage device carried by the customer is readable by a contactless device at the location of the merchant.
10. A method according to claim 1, wherein said step of authenticating further includes the steps of:  
  
calculating the total cost of the transaction, wherein said total cost includes a price for goods and services desired to be purchased by the customer and a multiplicity of additional charges added to the price by the parties to the transaction;  
  
communicating the total cost from said step of calculating to the customer; and  
  
acquiring the customer's agreement to pay the total cost from said step of calculating;  
  
wherein said steps of calculating, communicating, and acquiring are further members of said first sequence of steps.
11. A method according to claim 10, wherein said step of calculating further includes the step of converting, according to suitable currency exchange rates, all costs and charges into

the currency employed by the first payment service provider wherein the customer has an account, and wherein said step of converting is a further member of said first sequence of steps.

12. A method according to claim 10, wherein said step of authenticating, in a case wherein there is a need for additional credit for the customer to pay the total cost of the desired transaction, further includes the step of recharging the rechargeable prepaid debit account of the customer, and wherein said step of recharging is a further member of said first sequence of steps.
13. A method according to claim 12, wherein said step of recharging is performed automatically.
14. A method according to claim 1, wherein said step of fulfilling includes the step of recording the details of the transaction in at least one persistent storage device, wherein the persistent storage device is resident on at least one of the first and second payment gateways, and wherein the details of the transaction are accessible to both the first and second payment service providers, and wherein said step of recording is a further member of said first sequence of steps.
15. A method according to claim 2, wherein in said step of redirecting, the general network is a secure general network.
16. A method according to claim 15, wherein in said step of redirecting, the secure general network is a one member of the group including: the SS7 network, a standardized network communications technology including secure point-to-point communication, an internet connection including security provisions, and a private network.

17. A method according to claim 12, wherein the customer is operative to optionally restart said first sequence of steps in accordance with a number of selectable alternative payment options, further including the step of restarting said first sequence of steps in response to a null result from any of said steps of: authorizing, authenticating, approving, associating, identifying, acquiring, and recharging.
18. A method according to claim 17, wherein said second payment service provider is operative to reject the transaction in response to said step of selecting terminating in a null result, further including the step of rejecting the transaction, in response to said step of selecting terminating in a null result.
19. For use in an electronic commerce system allowing a customer having an account with a first payment service provider based in a home network to purchase goods and services from a merchant having an account with a second payment service provider based in a remote network,
- a payment gateway for communication with at least one similar payment gateway for enabling a transaction desired by a customer having an account with a first payment service provider based in a home network from a merchant having an account with a second payment service provider based in a remote network, including:
- a registrar for authenticating and authorizing the networks and payment service providers that said payment gateway recognizes as being valid parties to a transaction;
  - a peer recognizer for verifying the identity of other said payment gateways participating in enabling a transaction;
  - a local transaction interface for accepting requests, responses, and other messages, relating to a transaction, that originate with parties to the transaction that are based on the network on which said payment gateway is based and for forwarding responses, requests, and other messages, relating to a transaction, to parties to the transaction that are based on the network on which said payment gateway is based;

a router for determining, in their respective networks, the payment service providers and the other said payment gateways that are party to the transaction and for directing messages pertaining to the transaction to the respective parties;

a remote transaction interface for accepting responses, requests, and other messages, relating to a transaction, that originate with parties to the transaction that are based on a network on which said payment gateway is not based and for forwarding requests, responses, and other messages, relating to a transaction, to parties to the transaction that are based on the network on which said payment gateway is not based; and

a customer authenticator for verifying the identity of the customer to the remote payment service provider.

20. A payment gateway according to claim 19, further including a settler for transferring all credits and debits among all parties to the transaction.
21. A payment gateway according to claim 19, further including a persistent storage device for maintaining a record of the transaction and its status.
22. A payment gateway according to claim 21, wherein said persistent storage device includes a database system.
23. A payment gateway according to claim 19, further including a pricing agent for determining the total cost to the customer of the transaction, including charges added thereto by all parties to the transaction.
24. A payment gateway according to claim 23, further including an advisor for relaying, from said pricing agent via said local transaction interface, the corrected total cost

information to the customer via the remote network and for returning, via said local transaction interface, the customer's confirmation to proceed with the transaction.

25. A payment gateway according to claim 19, further including a foreign exchange adjuster for correcting the total cost of the transaction for differences in the currency exchange rates for currencies used by the parties to the transaction and for converting, according to suitable currency exchange rates, all costs and charges into the currency employed by the first payment service provider wherein the customer has an account.
26. A payment gateway according to claim 25, wherein the functions of at least one of: said settler, said pricing agent, said advisor, and said foreign exchange adjuster are performed by an external settler, an external pricing agent, an external advisor, and an external foreign exchange adjuster respectively, resident on parties to the transaction external to said payment gateway, and further including a relay interface for relaying, from the external parties, the results of said functions to said at least one of: said settler, said pricing agent, and said advisor, respectively, for further processing.
27. A payment gateway according to claim 19, wherein communication among said payment gateway and said at least one similar payment gateway is via a general network.
28. A payment gateway according to claim 27, wherein said general network is a secure general network.
29. A payment gateway according to claim 28, wherein said secure general network is one member of the group including: the SS7 network, a standardized network communications technology including secure point-to-point communication, an internet connection including security provisions, and a private network.

30. A payment gateway according to claim 19, wherein said peer recognizer verifies the identity of other said payment gateways participating in enabling a transaction by means of a central payment gateway on said general network operative to notify all participating said payment gateways of the existence and identity of any new said payment gateways.
31. A payment gateway according to claim 19, wherein the customer has a multiplicity of accounts with a multiplicity of respective first payment service providers and wherein the customer selects a particular account for executing the transaction and wherein said router directs messages pertaining to the transaction to the first payment service provider with which the customer has the selected account.
32. A payment gateway according to claim 31, wherein the multiplicity of accounts of the customer includes at least one of: a credit card, a debit card, a preauthorized credit line, a prepaid debit account, a rechargeable prepaid debit account, a prepaid telephony account, and a postpaid telephony account.
33. A payment gateway according to claim 32, wherein the rechargeable prepaid debit account employs a memory storage device carried by the customer.
34. A payment gateway according to claim 33, wherein the memory storage device carried by the customer is readable by a contactless device at the location of the merchant.
35. A payment gateway according to claim 19, wherein said customer authenticator verifies the identity of the customer by means of at least one member of the group including: a signature, a SIM card, an identifying object, a secret code, and a biometric identifier.
36. A payment gateway according to claim 19, wherein said customer authenticator requires verification of the identity of the customer that requires confirmation from the first payment service provider wherein the customer has an account.



37. A payment gateway according to claim 19, wherein said customer authenticator requires verification of the identity of the customer that is completed by the customer at the location of the merchant.
38. An electronic commerce system for allowing a customer having an account with a first payment service provider based in a home network to purchase goods and services from a merchant having an account with a second payment service provider based in a remote network, said electronic commerce system including:
- a first payment service provider with which a customer desiring to perform a transaction with a merchant has an account;
  - a home network on which said first payment service provider is based;
  - a second payment service provider with which the merchant has an account;
  - a remote network on which said second payment service provider is based and by means of which the merchant communicates with said second payment service provider;
  - at least two payment gateways, of which a first payment gateway is associated with said first payment service provider and a second payment gateway is associated with said second payment service provider; and
  - a general network by means of which said payment gateways communicate with one another.
39. A commerce system according to claim 38, wherein each of said payment gateways includes:
- a registrar for authenticating and authorizing said networks and said payment service providers that said payment gateway recognizes as being valid parties to the transaction;
  - a peer recognizer for verifying the identity of other said payment gateways participating in enabling the transaction;

a local transaction interface for accepting requests, responses, and other messages, relating to a transaction, that originate with parties to the transaction that are based on a network on which said payment gateway is based and for forwarding responses, requests, and other messages, relating to a transaction, to parties to the transaction that are based on said network on which said payment gateway is based;

a router for determining, in their respective networks, said payment service providers and the other said payment gateways that are party to the transaction and for directing messages pertaining to the transaction to the respective parties;

a remote transaction interface for accepting responses, requests, and other messages, relating to a transaction, that originate with parties to the transaction that are based on a network on which said payment gateway is not based and for forwarding requests, responses, and other messages, relating to a transaction, to parties to the transaction that are based on said network on which said payment gateway is not based; and

a customer authenticator for verifying the identity of the customer to said remote payment service provider.

40. A commerce system according to claim 39, wherein each of said payment gateways further includes a settler for transferring all credits and debits among all parties to the transaction.
41. A commerce system according to claim 39, wherein each of said payment gateways further includes a persistent storage device for maintaining a record of the transaction and its status.
42. A commerce system according to claim 41, wherein said persistent storage device includes a database system.

43. A commerce system according to claim 39, wherein each of said payment gateways further includes a pricing agent for determining the total cost to the customer of the transaction, including charges added thereto by all parties to the transaction.
44. A commerce system according to claim 39, wherein each of said payment gateways further includes an advisor for relaying, from said pricing agent via said local transaction interface, the corrected total cost information to the customer via said remote network and for returning, via said local transaction interface, the customer's confirmation to proceed with the transaction.
45. A commerce system according to claim 39, wherein each of said payment gateways further includes a foreign exchange adjuster for correcting the total cost of the transaction for differences in the currency exchange rates for currencies used by the parties to the transaction and for converting, according to suitable currency exchange rates, all costs and charges into the currency employed by said first payment service provider wherein the customer has an account.
46. A commerce system according to claim 45, wherein the functions of at least one of: said settler, said pricing agent, said advisor, and said foreign exchange adjuster are performed by an external settler, an external pricing agent, an external advisor, and an external foreign exchange adjuster respectively, resident on parties to the transaction external to said payment gateway, and further including a relay interface for relaying, from said external parties, the results of said functions to said at least one of: said settler, said pricing agent, and said advisor, respectively, for further processing.
47. A commerce system according to claim 38, wherein said general network is a secure general network.

48. A commerce system according to claim 47, wherein said secure general network is one member of the group including: the SS7 network, a standardized network communications technology including secure point-to-point communication, an internet connection including security provisions, and a private network.
49. A commerce system according to claim 39, wherein said peer recognizer verifies the identity of other said payment gateways participating in enabling the transaction by means of a central payment gateway on said general network operative to notify all participating said payment gateways of the existence and identity of any new said payment gateways.
50. A commerce system according to claim 39, wherein the customer has a multiplicity of accounts with a multiplicity of respective said first payment service providers and wherein the customer selects a particular account for executing the transaction and wherein said router directs messages pertaining to the transaction to said first payment service provider with which the customer has said selected account.
51. A commerce system according to claim 50, wherein said multiplicity of accounts of the customer includes at least one of: a credit card, a debit card, a preauthorized credit line, a prepaid debit account, a rechargeable prepaid debit account, a prepaid telephony account, and a postpaid telephony account.
52. A commerce system according to claim 51, wherein said rechargeable prepaid debit account employs a memory storage device carried by the customer.
53. A commerce system according to claim 52, wherein said memory storage device carried by the customer is readable by a contactless device at the location of the merchant.

54. A commerce system according to claim 39, wherein said customer authenticator verifies the identity of the customer by means of at least one member of the group including: a signature, a SIM card, an identifying object, a secret code, and a biometric identifier.
55. A commerce system according to claim 39, wherein said customer authenticator requires verification of the identity of the customer that requires confirmation from said first payment service provider wherein the customer has an account.
56. A commerce system according to claim 39, wherein said customer authenticator requires verification of the identity of the customer that is completed by the customer at the location of the merchant.